Theme Area: Water Resources

Program Area: Watershed and River Systems Management Program

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Project Title: Platte River Basin Water Management Support System

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Abstract: This research is for first stage development and implementation of a water management decision support system for portions of the Platte River Basin. It is envisioned that this support system will provide near real-time Internet access to daily high-resolution quantitative precipitation estimates (QPE), agricultural and riparian vegetation water use estimates, weather station data summaries, river stage and streamflow status, and short-term (1-3 day) quantitative precipitation forecasts (QPF). Benefits from such a system include more efficient water management practices for water conservation, water quality, and maintenance of riparian ecosystem habitat. In the future data from this support system could be incorporated into a daily water operations model for the Platte River Basin similar to the Upper Rio Grande Water Operations Model. The primary areas of work in FY 2000 are implementing Reclamation's AWARDS (Agricultural WAter Resources Decision Support) system in two study areas along the Platte River Basin, one in northeastern Colorado and the second in central Nebraska. Improved GIS layers will be used to provide visual enhancements to the Internet products. This study will partner with Reclamation's Great Plains Region, Eastern Colorado Area Office, Nebraska-Kansas Area Office, the Northern Colorado Water Conservancy District, the Central Platte Natural Resources District, the Natural Resources Conservation Service in both Colorado and Nebraska, US Geological Service Water Resources Division, the Fish and Wildlife Service, the NWS Missouri Basin River Forecast Center, the High Plains Climate Center, the Colorado Climate Center, the Agricultural Research Service Water Management Research Unit and Colorado State University in Ft. Collins, and the University of Nebraska Extension Water Management Unit.

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